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Educating Patients on Flu Shot Importance in the COVID-19 Era

Milton Family Practice

Nicole Delgado, MS3 and Shayan McGee, MS3

Family Medicine Clerkship: August - September 2020

Mentors: Dr. Kelly Brooks and Dr. Kimberly Hageman

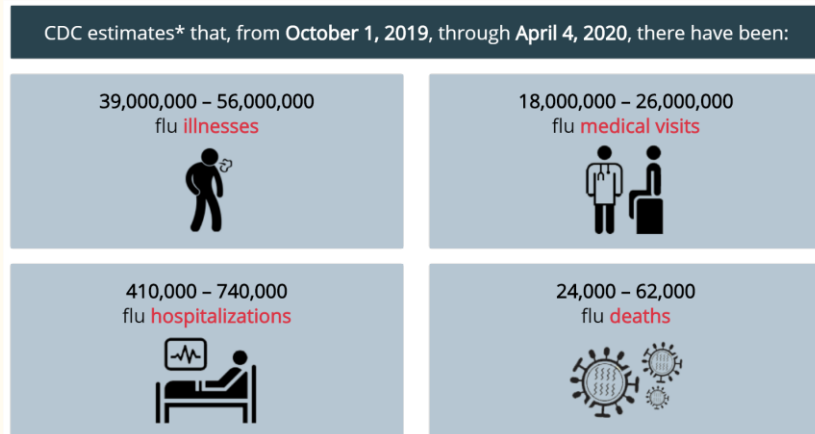
Problem Identification

- As fall approaches in 2020, it is even more important than previous years for patients to receive the influenza vaccine.
 - CDC believes influenza and Covid-19 will both be spreading this fall.¹
 - CDC recommends the flu vaccine for everyone age 6 months and older.¹
 - Currently no Covid-19 vaccine is available.
- Overlap of influenza/Covid-19 symptoms
 - Contagious respiratory viruses, with varying severity of symptoms.¹
 - Fever, cough, shortness of breath, fatigue, sore throat, runny nose, muscle pain, body aches, headache.¹
 - Possibly vomiting and diarrhea (more common in children than adults).¹
 - Covid-19 symptoms may additionally include loss of taste or smell.¹
 - Patients with respiratory symptoms may question when they should be tested and when they need to quarantine.
- Potential danger of co-infection with influenza and Covid-19
 - It is possible for someone to be infected with both viruses. Experts are currently studying how often this may occur.¹
 - CDC has developed a new test that simultaneously tests for influenza type A, influenza type B, and SARS-CoV-2. This test has received Emergency Use Authorization from the FDA. This test will be used in CDC public health laboratories for surveillance purposes. It will not replace the regular tests used for the individual viruses.¹

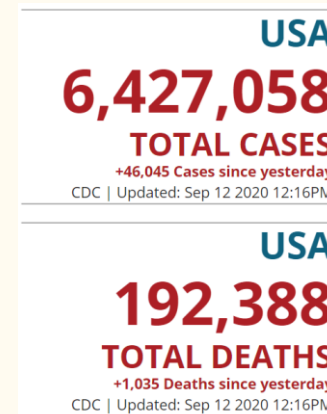
Public Health Cost

- Large study of healthy adults in 2 consecutive influenza seasons estimated the net societal cost of influenza per person.²
 - \$11.17/person when the vaccine and predominant circulating viruses matched well
 - \$65.59/person when the vaccine and predominant circulating viruses did not match well
- Analysis of 10 years of World Health Organization influenza surveillance data found that for healthy adults, on average, vaccination was more cost-effective than treatment or no intervention.²
- Cost benefit analysis favored influenza vaccine in older adults, due to indirect benefits such as to avoid suffering and lost wages.²

Influenza

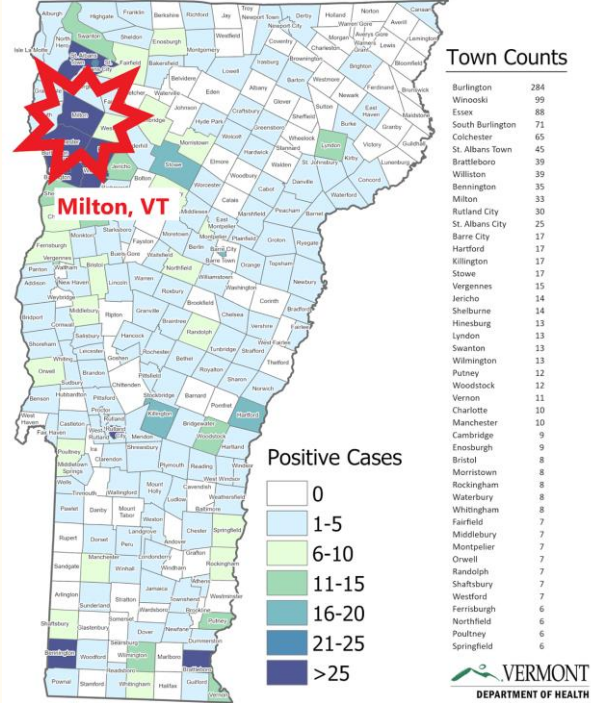


Covid-19



Unique Considerations in Host Community

Vermonters Who Have Tested Positive for COVID-19 by Town
Data Current as of March 5, 2020 - September 2, 2020



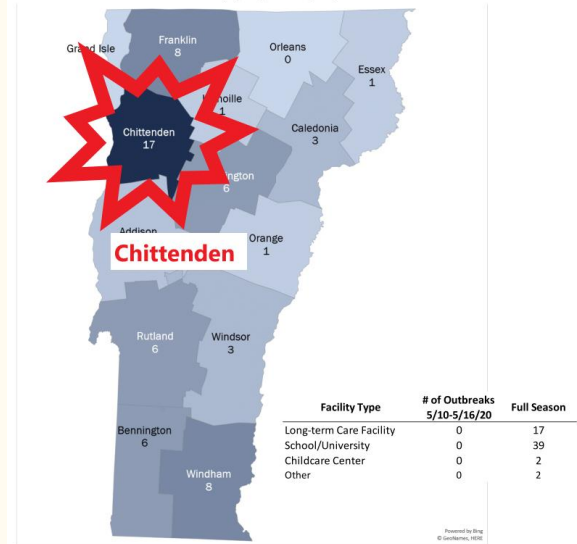
- 33 COVID-19 positive cases in Milton, VT between 3/5/2020 - 9/2/2020. This is in the top-10 highest rates for towns in VT.³
- 17 influenza-like illnesses and influenza lab confirmed outbreaks in Chittenden County (includes Milton). This is the highest rate for any county in VT.⁴

Flu Surveillance Report

Reported Outbreaks

Institutional outbreaks of flu or influenza-like illness are reportable to the Health Department.

Number of Influenza-like Illness and Influenza Lab Confirmed Outbreaks, 9/29/19 - 5/16/20



For more information: Veronica Fialkowski veronica.fialkowski@vermont.gov

Community Perspective

- **Aaron Reiter, MD**

- “Incumbent to the success of a vaccination campaign, is buy in from the community at large. Herd protection will not be achieved when large swaths of a population categorically reject a vaccine. Worse yet, SARS-COV-2 has become a politically charged public health crisis and in northern Vermont, and there exists a particularly large cohort of individuals who reject guidance from federal or national institutions of medicine. Perhaps having their trusted local, medical home provide additional education will encourage them to reconsider their decisions on vaccination.”

- **Holly VanWinkle, Milton Family Practice Site Supervisor, and member of UVM Flu Shot Committee**

- “I absolutely think placing educational material about Covid and the flu in our patient exam rooms will make a difference in encouraging patients to get their flu shot. Any exposure or education a patient can receive is always valuable.”
- “Because of social distancing, we are going to see more flu-shot clinics spread out in different locations at larger venues. We anticipate doing flu-shot clinics during the evenings and on Saturdays at Milton Family Practice, because we can’t do it during business hours with social distancing regulations.”
- “I anticipate a point in time that we may have to shift to more Telehealth appointments if we see a surge this fall. We are prepared for this, but it’s just different. Some people may avoid care if they are afraid, including routine care such as for diabetes. We have to think about every aspect of care, for example, transportation, Maybe someone is afraid, so they won’t offer to give a patient a ride to the office anymore. And, it is still very rural in Vermont. Some people don’t have internet and can’t do Telehealth.”

Community Perspective

- **Melisa Gibson, MD**

- “I think people are often waiting in the exam rooms before we get there, and having something for them to read in there very helpful.”
- “This is not the time to let up. In fact, as we move more indoors, and as the weather mandates that we are inside more, we have to actually re-dedicate ourselves to the policies and practices that keep us healthy.”

- **Patient of Milton Family Practice**

- “I’d like to think I’m reasonably enlightened, from personal experience... you pick up enough medical knowledge. What about somebody who has none of that experience, and they have no idea, and are having to rely on political leadership for guidance? And the political leadership is more focused on a reelection campaign than saving lives.”

Intervention and Methodology

- Educational pages were designed for display in patient exam rooms at Milton Family Practice.
- Information included:
 - Symptom overlap between COVID-19 and Influenza, emphasizing COVID-specific symptoms (i.e. lost of taste and smell)
 - Epidemiological comparison of COVID-19 and last year's influenza statistics (i.e. total number of cases, total number of deaths, etc.)
 - Emphasis on the importance getting a flu shot and the dangers of co-infection with coronavirus

Results

- The materials designed for this project were placed in exam rooms at Milton Family Practice in September 2020. Staff was extremely enthusiastic about the idea. Patient response will be evaluated throughout fall.

WHAT'S THE DIFFERENCE BETWEEN COVID-19 AND THE SEASONAL FLU VIRUS?

- COVID-19 is a type of coronavirus, whereas the "flu" is caused by influenza virus
- Despite there being far more cases of influenza each year, Covid-19 has caused significantly more deaths!



SIGNS AND SYMPTOMS:

- Similarities:**
 - Both viruses have a varying degree of symptoms ranging from asymptomatic to severe
 - Common symptoms shared by Covid-19 and the flu are:
 - Fever or feeling feverish/chills
 - Cough
 - Shortness of breath or difficulty breathing
 - Fatigue (tiredness)
 - Sore throat
 - Runny or stuffy nose
 - Muscle pain or body aches
 - Headache
 - Some people may have vomiting and diarrhea, though this is more common in children than adults
- Differences:** Covid-19 can cause a loss of taste and/or smell

OTHER DIFFERENCES

- If a person has Covid-19, it can take them longer to develop symptoms than if they had the flu virus (which take 1-4 days after being infected)
- For both Covid-19 and the flu, it's possible to spread the virus for at least 1 day before experiencing symptoms, however, persons infected with Covid-19 may be contagious for a longer total period of time than if they had flu
- Both viruses spread in similar ways (mainly respiratory droplets and contaminated surfaces), however, Covid-19 has been shown to be more contagious in certain populations

WHAT HAPPENS IF I GET BOTH VIRUSES?

- It is possible to get infected with both viruses
- Covid-19 has significantly worse outcomes in patients with pre-existing comorbidities -> Getting influenza virus can create a similar pre-existing state of vulnerability, leading to a severe infection with Covid-19; if you are someone with a pre-existing condition, the effect could be even worse
- If co-infection were to occur, you would also be at increased risk of additional "superimposed" infections such as pneumonia, further complicating your recovery.

HOW TO PROTECT YOURSELF:

- GET A FLU SHOT! Avoiding a double-infection (Covid-19 + Flu virus) is critical
- Continue practicing good hygiene and wearing masks! This will help protect you from both the flu and Covid-19. As the weather gets colder, we will be forced to spend more time indoors, where both viruses can spread much easier.
- Call your doctor immediately if you experience any symptoms
- Remember! A loss of taste or smell is much more likely to be Covid-19

Evaluation of Effectiveness

- Survey patients:
 - What is your opinion of the new influenza/Covid-19 information posted in the exam rooms?
 - What is your understanding of similarities and differences between influenza and Covid-19? Do you feel that you have a better understanding after reading the posted information?
 - Do you plan to get the flu shot this year? Has this decision has been influenced by Covid-19? Has this decision been influenced by the information posted in the exam room?
 - How often have you gotten your flu shot in previous years?
 - What changes have you noticed in flu-shot accessibility due to Covid-19 and social distancing?
 - What suggestions do you have for additional information that would helpful for us to provide in an educational brochure?
- Analyze 2020 Vermont influenza data compared to previous years, including infection rates, morbidity/mortality and public health cost.
 - Will influenza rates be lower this year, with social distancing precautions in place and an increased importance placed on vaccination?
- Analyze any change in the infection rate and morbidity/mortality of Covid-19 that coincides with flu season
 - Could influenza be partially causative of these changes? What other seasonal factors are at play?

Recommendations for Future Interventions

- Display influenza/covid educational information in other doctor's offices throughout Vermont, as well as other locations such as grocery stores, schools, and pharmacies
- Develop an educational brochure with more in-depth information about influenza and Covid-19. Use suggestions from patient surveys to decide what information would be most helpful to include.

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